

IN THE CLAIMS AMEND

1. (Currently Amended) Littrow grating with a multiplicity of parallel diffraction structures succeeding one another periodically, which are arranged on a support defining a base area and each incorporate a planar blaze flank inclined towards the base area substantially at the Littrow angle and a counter-flank, wherein the blaze flank and the counter-flank form at the apex of a diffraction structure an apex angle with is less than 90° ,

characterised in that

the counter-flank (6) comprises at least two substantially plane area sections (7, 8) which,

bordering one another and inclined relative to one another by an angle of inclination (β), extend parallel with the extension direction of the diffraction structure (3), wherein due to the inclination of the at least two area sections (7, 8) relative to one another the counter-flank (6) all in all exhibits a concave surface viewed from the light incidence side, and in that the region of the counter flank where the two substantially plane area sections (7, 8) meet, is lower than the lowest area of the blaze flank.

2. (Original) Littrow grating according to claim 1, characterised in that the area sections (7, 8) exhibit a width ratio of 0.5 to 2 measured normal to the extension direction of the diffraction structures (3).

3. (Original) Littrow grating according to claim 1, chracterised in that the angle of inclination (β) lies in the range of 90° to 150° .

4. (Original) Littrow grating according to claim 1, characterised in that it consists of quartz glass.

5. (Original) Littrow grating according to claim 1, characterised in that it comprises a coating increasing the reflectivity.

6. (Original) Littrow grating according to claim 5, characterised in that the coating is an aluminum coating.

7. (Original) Littrow grating according to claim 1, characterised in that it comprises a dielectric layer system.

8. (Original) Littrow grating according to claim 7, characterised in that the dielectric layer system comprises layers of Al_2O_3 and MgF_2 .

9. (Original) Littrow grating according to claim 7, characterised in that the dielectric layer system comprises layers of LaF_3 and MgF_2 .

10. (Original) Littrow grating according to claim 1, characterised in that the blaze flank (5) comprises, measured normal to the extension direction of the diffraction structures (3), a minimum width of $g \cos(\theta)$, where g designates the grating period of the Littrow grating and θ the Littrow angle.

11. (Original) Use of a Littrow grating according to claim 1 in a diffraction order of the incident light wavelength above or equal to the 15th diffraction order.

12. (Original) Use of a Littrow grating according to claim 1 for the diffraction of UV light (9, 10, 11, 12) with a wavelength that is less than 250 nm.
